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Science and Engineering Research Canada

# Contact

Investing in people, discovery and innovation

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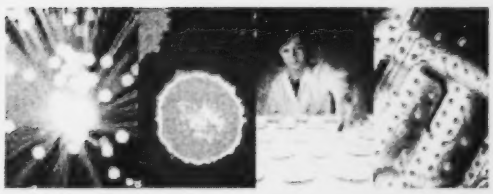

## Dr. Suzanne Fortier Named President of NSERC

As *Contact* was going to print, the Honourable David L. Emerson, Minister of Industry and Minister responsible for NSERC, announced the appointment of Dr. Suzanne Fortier as President of NSERC.

Dr. Fortier, a professor in the Department of Chemistry and the School of Computing at Queen's University, will take up the position early in the new year.

For details on her distinguished career, visit www.nserc.gc.ca/news/news_rel_e.htm.

Suzanne Fortier

## New NSERC Prize Launched

Editorial by Dr. Nigel Lloyd, Chief Operating Officer and Executive Vice-President of NSERC

I am delighted to inform you that, on October 17, at the University of Toronto, NSERC launched a $250,000 research prize in honour of Canadian scientist John C. Polanyi, winner of the 1986 Nobel Prize for Chemistry. The NSERC John C. Polanyi Award will be presented annually in recognition of a recent outstanding Canadian advance made by a researcher or team of researchers in any field of the natural sciences or engineering.

(continued on page 2)

NSERC
CRSNG

Natural Sciences and Engineering Research Council of Canada
Conseil de recherches en sciences naturelles et en génie du Canada

Canada

NSERC, now also known as Science and Engineering Research Canada, is a key federal agency investing in people, discovery, and innovation. It supports both basic university research through research grants, and project research through partnerships among postsecondary institutions, government and the private sector, as well as the advanced training of highly qualified people.

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Editor-in-Chief
Joyce French
E-mail:
joyce.french@nserc.ca

Please send address changes by e-mail to distribution@nserc.ca.

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*Continued from cover page*

Peter Bregg, Maclean's

John C. Polanyi

It seems particularly fitting to me that we now have a prize bearing Dr. Polanyi's name, given his personal ties to the individuals for whom two of our other prizes are named: E.W.R. Steacie, with whom Dr. Polanyi did his postdoctoral work, and Gerhard Herzberg, with whom Dr. Polanyi worked at the National Research Council.

Dr. Polanyi, an active faculty member at the University, attended the event last month alongside Professor John Challis, University of Toronto's Vice-President, Research, and Associate Provost. NSERC Council Members, who were holding their fall meeting there at the invitation of the University, were on hand as well. Dr. Joanne Keselman, Acting Chair of NSERC's Council, noted that "John Polanyi has for decades been one of the most outstanding researchers in Canada, an individual whose name is synonymous with the excellence of Canadian science, both at home and abroad." Addressing Dr. Polanyi, Dr. Keselman said, "We at NSERC are extremely proud of our association with and support of your research over the years." Indeed, he has received support from NSERC and its predecessor organization, the National Research Council, for close to half a century.

In expressing his gratitude for the honour, Dr. Polanyi observed, "This new award is distinguished by the fact that it avoids attempting to manage the process of discovery. Where the green shoots of important new science emerge, NSERC, through this new award, will fertilize them. …Nowhere in the country do we have a greater concentration of experience in cultivating the garden of science than in NSERC."

Dr. Polanyi won the Nobel Prize for groundbreaking work in documenting the energy states and the movements of molecules during the moment of reaction. His discoveries radically advanced the understanding of the physics of chemical reactions and led to the development of powerful new lasers. In recent years, he has been pushing back the frontiers of knowledge in nanotechnology.

In order for an individual or team to be eligible for the new award, NSERC must have supported, at least in part, the research leading to the advance. Either the individual nominated or at least one team member must hold an NSERC grant. Other members may be from academia, government or industry and may include research associates, postdoctoral fellows or students.

The winning individual or team will receive a medal and a research grant of $250,000.

The first competition for the NSERC John C. Polanyi Award begins immediately, with a closing date of March 1, 2006. Nomination information is available at www.nserc.gc.ca/polanyi/e.

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NSERC's past president, Dr. Thomas Brzustowski (whose term expired at the end of September), was instrumental in promoting the concept of the prize. As many of you are aware, he saw clearly how important it is to have high profile national awards that can remind Canadians of the outstanding scientists and engineers in our midst. Such prizes celebrate both the researchers who win them and their "audience" of co-workers and colleagues, students and Canadians across the country.

Until the new President is in place, through an arrangement approved by NSERC Council and the Minister of Industry, I am sharing the duties of President with Dr. Joanne C. Keselman, Vice-President, Research and Professor of Psychology at the University of Manitoba. Dr. Keselman became a member of Council in 2000, was appointed Vice-President in 2002 and, on October 1, took on the role of Acting Chair of Council. I have taken on the responsibilities of Chief Operating Officer in addition to my regular duties as Executive Vice-President of NSERC.

# News from the Regions

## Second NSERC Regional Office Now Open for Business

NSERC's second regional office is now open. Located in downtown Winnipeg, in the building that houses the National Research Council's Institute for Biodiagnostics, the NSERC Prairie office will enable the Council to establish a stronger presence in the region and to develop better ways to serve the needs of the institutions, researchers and students in Manitoba, Alberta and Saskatchewan. *[Editor's note: The official opening will likely take place in early 2006. See the next issue for news about the event.]*

Irene Mikawoz, Alfonz Koncan and Ray Hoemsen, at NSERC headquarters in Ottawa in October.

"The new office will be able to build on the experience of the first year of operations in Atlantic Canada, while adapting its efforts to the specific needs and context of the region," says Danielle Ménard, Director of Policy and International Relations and responsible for the development of regional offices.

In early September, Ray Hoemsen was hired as manager of the NSERC Prairie office. Seconded on a half-time basis from his position as Director of Applied Research & Commercialization at Red River College, Mr. Hoemsen has accepted a mandate as Visiting Executive at NSERC, with responsibility for establishing the new office. He has held research management positions at the University of Manitoba and is the Founding Chair of the Board of the WestLink Innovation Network.

Two additional staff members, Alfonz Koncan and Irene Mikawoz, have recently joined the office as research development and promotion officers. They will be responsible for facilitating researchers' and students' access to NSERC programs, promoting partnerships and collaboration, and working with others to promote research, and science and math education.

The NSERC Prairie Office is located at 435 Ellice Avenue, Room 430, Winnipeg, Manitoba R3B 1Y6. For more information, call (204) 984-6462 or visit www.nserc.gc.ca/about/initiatives/reg_offices_e.htm.

**Following consultations with stakeholders in British Columbia, NSERC has decided to go ahead with setting up a regional office in Vancouver. Staffing will be initiated in November, and we expect the office to open in spring 2006.**

## NSERC Active in Atlantic Canada

In its first year in operation, the NSERC Atlantic Office has established its presence in a very tangible way: 1,493 people attended presentations given by staff; 1,430 people attended events where the office had a kiosk; and staff made 77 visits to 14 universities and 3 community colleges in Atlantic Canada. Staff from the office also participated in numerous conferences, meetings and events throughout Atlantic Canada.

"We've had many accomplishments in our first year," says Dr. Yves Gagnon, Visiting Executive in charge of the office. "For example, we've organized nine workshops to promote university-industry partnerships, and people are recognizing the NSERC name and logo across the region."

The NSERC Atlantic Office has recently produced an annual report highlighting some of its activities and impacts throughout the region. To obtain a copy, visit www.nserc.gc.ca/about/initiatives/atlantic_e.htm or call (506) 854-8154.

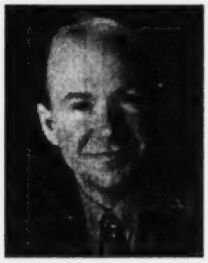
Yves Gagnon (left) and Arthur Carty, National Science Advisor to the Prime Minister, at Dalhousie University in September, on the occasion of the 25th anniversary of the A.G. Huntsman Award, which recognizes excellence in research and outstanding contributions to marine sciences.

"NSERC's office in Atlantic Canada works with a large network of people and organizations involved in research and innovation in the region," says Danielle Ménard. "It enables us to interact directly with people much more frequently than in the past; we can bring relevant information to their discussions and, in turn, we become better informed about the issues they are facing."

# Appointments to NSERC

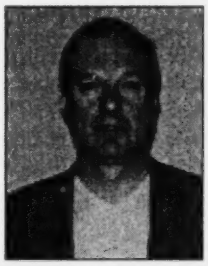
In June, the Honourable David L. Emerson, Minister of Industry and Minister responsible for NSERC, announced the appointment of seven new members to the NSERC Council. In addition, Claude Benoit, Max Blouw, Mike Lazaridis and Maurice Moloney were reappointed. All terms are three years in duration.

## The New Members of Council



Alain Bellemare

**Alain Bellemare** is President of Pratt & Whitney Canada. He joined P&WC in 1996, serving previously as the company's Vice President of Manufacturing and Vice President of Operations. Mr. Bellemare, who is also a member of the Board of Trade of Metropolitan Montreal, has a Master of Business Administration from McGill University and a bachelor's degree in mechanical engineering from the Université de Sherbrooke.



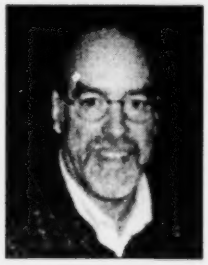
Adam Chowaniec

**Adam Chowaniec** is Chair of the Board of Tundra Semiconductor Corporation. Previously, he held senior positions at Newbridge Networks Corporation, Calmos Systems Inc., Commodore International and Northern Telecom/Bell Northern Research. Dr. Chowaniec, who is also a member of the Board of the Information Technologies Association of Canada and Executive in Residence at Vengrowth Capital Partners, has a master's degree in electronic engineering from Queen's University and a Ph.D. in electronic engineering from the University of Sheffield.

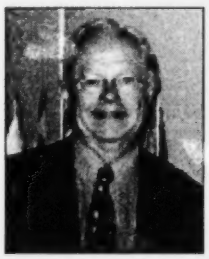
J. Haig deB. Farris

**J. Haig deB. Farris** is President of Fractal Capital Corp., a private venture capital company financing high technology start-ups and resource service technology companies. He is also a director and founder of two University of British Columbia spin-out companies: D-Wave Systems Inc., a quantum computing company; and Zymeworks Inc., an enzyme design company. Prior to this, he was co-founder and partner of the Ventures West Management group of venture capital funds, the largest venture capital pool in Western Canada. Mr. Farris holds a Bachelor of Arts degree from the University of British Columbia and an LL.D. from the University of Pennsylvania Law School.

**Louis Fortier**, one of Canada's leading Arctic scientists, has been a professor in Université Laval's Department of Biology since 2000. He is also project leader for the Canadian Research Icebreaker *Amundsen*, Scientific Director of ArcticNet and a Canada Research Chairholder. Dr. Fortier served as Executive Director of Québec Océan from 1996 until 2005. He received a master's degree in biological oceanography from Université Laval and a Ph.D. in biological oceanography from McGill University.



Louis Fortier

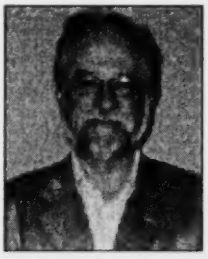


Murray McLaughlin

**Murray McLaughlin** is President of McLaughlin Consulting, which provides advice on matters such as financial, regulatory, and technology commercialization issues for the agriculture, agri-food and life sciences sector. He is former President and CEO of Foragen Technologies Management Inc., and has also served as President of Ontario Agri-Food Technologies and Deputy Minister of the Saskatchewan Department of Agriculture and Food. Dr. McLaughlin holds a master's degree and a Ph.D. from Cornell University.

**Mary Anne White** is Director of the Institute for Research in Materials at Dalhousie University and a professor of chemistry with a cross-appointment in physics. She holds the Killam Research Professorship in Materials Science and is a Member of the Scientific Advisory Committee, Canadian Light Source, and of the Nova Scotia Premier's Council on Innovation. She has a Ph.D. in physical chemistry from McMaster University.

Mary Anne White



Robert Young

**Robert Young** is Vice-President of Medicinal Chemistry at Merck Frosst Canada Ltd., which he joined in 1977. He has authored or co-authored over 80 articles, and has received several awards and distinctions, including Member of the Order of Canada. Dr. Young is a Member of the Advisory Council of the Centre for Research in Biopharmaceuticals and Biotechnology at the University of Ottawa. He holds a Ph.D. in chemistry from the University of British Columbia.

# 2005 Synergy and Innovation Awards Presented

The 2005 NSERC **Synergy Awards for Innovation** were presented in Halifax on October 19 at a gala dinner attended by 350 invited guests from across Canada. The prizes celebrate effective partnerships that connect university research leaders with the private sector to deliver research results to the marketplace, and have been awarded by the Council annually since 1995. The university partners receive a $25,000 research grant and their industrial collaborators an original sculpture. This year's winners are:

### Small and Medium-Sized Companies Category

- Simon Fraser University (Dr. Harold Weinberg) and VSM Medtech Ltd. for the development of medical imaging technologies and the opening of new frontiers in the understanding of brain function and the treatment of neurological disease; and
- The University of Manitoba (Dr. Aftab Mufti) and Vector Construction Group for bringing together innovative ideas with leading-edge materials and systems to better restore and monitor concrete and timber structures.

### Large Companies Category

- The University of New Brunswick – St. John (Dr. Deborah MacLatchy,) and Irving Pulp and Paper Ltd. and Environment Canada's National Water Research Institute for world leadership in pinpointing the source of pulp and paper mill compounds that cause reproductive changes in fish, and in validating a reliable technological remedy.

David Gravely Photography Dartmouth, N.S.

(from left to right) Joanne Keselman (Acting Chair of NSERC Council), David Muir (Irving Pulp and Paper Ltd.), Nigel Lloyd (Chief Operating Officer of NSERC), Mark Hewitt (Environment Canada), Deborah MacLatchy (University of New Brunswick), and Monique Dubé (Environment Canada).

### Two or More Companies Category

- The University of Manitoba (Dr. Aniruddha M. Gole), Manitoba HVDC Research Centre, and RTDS Technologies Inc. for the development of state-of-the-art technologies for power systems simulation and creating a corps of highly trained professionals; and

University - Industry Synergy

- The University of Toronto (Dr. Joseph C. Paradi and Dr. Douglas Reeve), TD Bank Financial Group, RBC Financial Group, Bell Canada, and BMO Financial Group for their work in finding unconventional solutions to such challenges in the financial services sector as evaluating mutual fund performance and improving the accuracy of the automated credit-card fraud detection.

### Leo Derikx Award

- The Université du Québec à Chicoutimi (Dr. Masoud Farzaneh) and Hydro-Québec for a long-term collaboration to develop new technologies to reduce damage from ice build-up on electric transmission equipment.
- The Halifax gala was also the venue for the awarding of the second annual **Innovation Challenge Awards**. Dr. Benjamin Hatton, of the University of Toronto, won the $10,000 main prize for his proposal to develop and commercialize nanoporous films for applications in microelectronics. Richard Yuqiang Tu of Simon Fraser University and Razvan Nutiu of McMaster University won the two $5,000 prizes. Seven individuals also received honourable mention prizes of $1,000:

David Gravely Photography Dartmouth, N.S.

Benjamin Hatton

Marie-Christine Bélanger (Université Laval)

Mira Francis (Université de Montréal)

Siyuan He (University of Toronto)

Todd Hoare (McMaster University)

Heather Lord (University of Waterloo)

Laurette McCormick (University of Ottawa) and

Terris Yakimovich (University of Ottawa).

The NSERC Innovation Challenge is co-sponsored by GrowthWorks, a leading venture capital fund manager, Bell Canada, MDS Sciex, and Foragen Technologies Management Inc.

# Canadian Stroke Network Renewed

**The Canadian Stroke Network has been awarded $26.5 million over the next four years in the Networks of Centres of Excellence's competition for renewal funding. The announcement was made in September by the Honourable Mauril Bélanger, Minister of Internal Trade and Deputy Leader of the Government in the House of Commons.**

**The network will use the funds to develop the Canadian Stroke Strategy in partnership with the Heart and Stroke Foundation of Canada, provincial ministries of health, public health agencies and other organizations. The Strategy is aimed at bridging the gap between the latest stroke research and the current practices in most parts of the country.**

# Strategic Project Grants

## New Target Areas to Be Announced Soon for the 2006 Competition

NSERC is conducting a major review of the Strategic Project Grants target areas. New descriptions will be posted on our Web site in late January and will be in effect for the April 15, 2006, competition deadline.

The Strategic Project Grants program funds project research in target areas of national importance and in emerging areas that are of potential significance to Canada. NSERC determines the target areas for the program by conducting a review every four or five years, and we are in the midst of one right now. We are examining reports, interviewing senior government officials, consulting the research community and industry representatives, and establishing focus groups.

The objective is to narrow down the number of research topics within seven target areas to those that are the most strategically significant for Canada. By targeting fewer research topics, NSERC hopes to increase the impact of the limited funds available.

The following table summarizes the results of the last competition:

**Strategic Project Grants 2004-05 Competition Summary**

| Area | Number of Appl. | Number of Awards | Success Ratio (%) | Total for Year 1 (millions of $) Requested | Awarded |
|---|---|---|---|---|---|
| Biosciences | 98 | 21 | 21.4 | 15.82 | 3.36 |
| Environment and Sustainable Development | 106 | 25 | 23.6 | 14.44 | 3.44 |
| Information and Comm. Technologies | 67 | 15 | 22.4 | 9.72 | 2.22 |
| Value-Added Products and Processes | 87 | 22 | 25.3 | 11.54 | 2.68 |
| Climate Change Technologies (incl. GHGM)* | 48 | 15 | 31.3 | 5.58 | 1.81 |
| New Media | 14 | 2 | 14.3 | 1.65 | .21 |
| **TOTAL** | **420** | **100** | **23.8** | **58.75** | **13.72** |

* The results include applications to the Strategic Program, the NSERC/NRCan initiative in Greenhouse Gas Mitigation and incremental funds earmarked for climate change technology.

# Upcoming Reallocations Exercise Cancelled

Following a formal evaluation, NSERC's Council has decided to cancel the reallocations exercise that was to be launched in 2006. The decision to cancel it was based on several findings. One of the most important was that, while the reallocations exercise was the mechanism, conducted every four years, by which Council redistributed ten per cent of the Discovery Grants budget to priority research areas or initiatives, the benefits were not commensurate with the large investment of time and effort required from the research community and NSERC staff.

NSERC is now studying the possibilities for devising a clearer, simpler process that will significantly reduce the burden on the research community. The new process will most likely be driven by more easily measurable criteria such as discipline dynamics, i.e., the variation over time in the number of researchers applying for funding in a given discipline, and possibly also by the cost of research.

The evaluation report and an action plan to develop the new process will be published on NSERC's Web site in late 2005 or early 2006.

The decision to change the process will not affect the results of the 2002 reallocations exercise, which will be in effect until 2007 when the new process will kick in.

Focus on:

# Role Models for Young Women in Science and Engineering

One of the biggest challenges to increasing the number of women in science, engineering and technology (SET) is to provide outstanding role models – women who are recognized in these fields and who can inspire others still considering their career options. In this article, we take a look at several women who are doing just that.

## Dr. Claire Deschênes Leads by Example

Claire Deschênes

Dr. Claire Deschênes, a professor of Mechanical Engineering at Université Laval who has just completed eight years as the NSERC/Alcan Chair for Women in Science and Engineering for the Quebec Region, has long been an advocate for the advancement of women in science and engineering.

"It's not enough just to encourage young women to choose scientific careers," she says. "We also need to equip them so that they will be able to integrate themselves well into universities or the job market, and watch to ensure that they face as little discrimination as possible. Our activities have focused on such aspects as career choice and development, promotions, access to positions with greater responsibility, leadership, challenges facing immigrants, and balancing family responsibilities with career or studying."

While serving as NSERC/Alcan Chair, Dr. Deschênes has worked with researchers in sociology and education to better understand the attitudes of young women. This work has included developing strategies to stop young women from abandoning science courses in high school and university, and to convince them that there are exciting career opportunities awaiting them in these fields.

To help overcome young women's lack of interest in physics in high school, she initiated OPUS, a Web site (in French) that offers high school students and their teachers information on scientific and technical careers. The site averages 110 visitors a day, 75 per cent of whom are girls.

At Université Laval, she organized a series of noon-hour meetings for undergraduate and graduate students in science and engineering, providing round tables, panel discussions and guest speakers on topics of interest to them. To fulfil the regional mandate of the Chair, Dr. Deschênes participates in events across Quebec and beyond, and has established representatives at the Université du Québec à Chicoutimi, the Université de Moncton, and the Université de Sherbrooke, which carry out programs and activities locally.

Working with MOIFEM (Mouvement International pour les femmes et l'enseignement des mathématiques) and the Marianne Mareschal Chair, she established a new Francophone association, AFFESTIM (Association de la francophonie à propos des femmes en sciences, technologies, ingénierie et mathématiques). AFFESTIM is a member of the International Network of Women Engineers and Scientists (INWES). Dr. Deschênes has been President of AFFESTIM since October 2003, and Secretary of INWES since July 2002.

Dr. Deschênes maintains an active research program in fluid mechanics that is supported by NSERC in collaboration with industry and government departments. Since 1989, she has been Director of the Hydraulic Machinery Laboratory, a joint initiative of Natural Resources Canada and Université Laval, which conducts research in the field of hydraulic turbo machinery. She has been responsible for the development of a closed-circuit test facility for models of large turbines and micro-turbines, and the modernization of the associated equipment and instrumentation, able to cover a wide range of experimental testing conditions and associated numerical simulations.

## Dr. Julita Vassileva Aims to Make the New Prairie Region Chair a Catalyst

Julita Vassileva

Dr. Julita Vassileva, an associate professor in the Department of Computer Science at the University of Saskatchewan, was recently awarded the NSERC/Cameco Corporation Chair for Women in Science and Engineering for the Prairie Region.

(continued on page 10)

# Everything You Need to Know About Collaborative Research and Development Grants

Partnering with a Canadian-based company is one of the best ways to see your ideas transformed into tangible benefits for Canada's economy and to give students and postdoctoral fellows an edge in developing new skills for post-university employment.

One of the most flexible and accessible vehicles for partnering is the NSERC Collaborative Research and Development (CRD) program. It's attractive to both professors and companies, and offers excellent leverage because NSERC will match, dollar for dollar, the private-sector net cash contribution to the project. In-kind contributions will also be considered for matching if they are deemed essential to the project and represent a direct incremental cost to the company. For example, eligible for inclusion are the costs incurred to produce specialized samples and the salary costs of company staff who work directly on the project.

The over-arching expectation is that benefits of the project will be realized in Canada. Any Canadian-based company, or multi-national with research or manufacturing activities based here, is eligible as a partner. Canadian industry associations and consortia may also be eligible, while organizations supported exclusively through government funds are not. If you are unsure about the eligibility of a potential partner, NSERC staff will be pleased to advise you.

## CRD Summary Information

**Purpose:** To encourage collaborations resulting in economic benefits to Canada.
**Deadlines:** Any time.
**Criteria:** (1) Scientific merit; (2) Research competence; (3) Industrial relevance; (4) Private-sector support; (5) Contribution to training; (6) Benefit to Canada.
**Application Procedures:** Forms 100, 101 and 183A (Orgs. Info. for RPP) can be submitted using the on-line system. Decisions are usually made within 3-5 months of NSERC receiving a complete application.
**Success Rate:** 84%.
**Average Grant:** $50,000.
**Number of years:** 1 to 5, most common request for 3 years.
**Program Budget:** $30 million.
For more information, contact Lynda Wood, at (613) 944-4570 or lynda.wood@nserc.ca.

## CRD Success Story

The benefits are summed up by Arc Rajtar, Chief Technology Officer, MIVI Technologies, who had the following to say when asked if the CRD recently completed with Tom Troczynski of UBC on phosphate coatings for stents was a success: "The program outcome exceeded our expectations. We believe the NSERC-sponsored program was extremely beneficial to our company, and to UBC. Successful outcome of this program moved our company decisively towards successful commercialization of our technology."

NSERC staff will also help out by playing an active role during the review process. They will review your draft applications, as well as contact you for additional information to answer questions from external expert referees.

Large CRDs (over $150,000 requested in the first year) are reviewed not only by external reviewers, but also by the Advisory Committee on University-Industry Grants. This Committee, which comprises academic, government and industry researchers, sees about 50 applications each year. What are the most frequent deficiencies they see? The "economic benefit to Canada" criterion is not adequately addressed, and the in-kind contributions are over-inflated or poorly justified.

## Did you know?

(data from a recent survey and other sources)

- The access to new ideas, the updating of knowledge, and the training of students and postdoctoral fellows are the top three benefits identified by university and industry participants.
- A single CRD project trains seven students and postdoctoral fellows in skills relevant to industry.
- Almost all respondents said that they would participate in another CRD project.
- Applicants need not hold a Discovery grant to be eligible to apply.
- The success rate for CRD applications is attractive. Last year, about 84 per cent of the 294 applications to NSERC were approved for funding.
- The project can be at any stage along the R&D spectrum, as long as the project has industrial relevance.
- One or more Canadian-based companies can be partners on a single application.
- NSERC often makes funding decisions in less than three months from submission of a complete application.
- The finalization of the Research Agreement (an essential pre-requisite for release of funds) is the most time-consuming stage.

# Changes at NSERC

NSERC is pleased to announce the following staff changes:

Danielle Ménard

- **Danielle Ménard** has been appointed Director of the Policy and International Relations Division, replacing Steve Shugar who retired in October. Formerly Director, Development of Regional Offices, Danielle will retain overall responsibility for the development of Regional Offices for the next few months, and the managers of each regional office will continue to report directly to her.

William Coderre

- **William (Bill) Coderre**, Director, Corporate Development, will take on additional responsibilities related to the development of regional offices, including overseeing day-to-day liaison with the existing offices and the set-up of the planned office in British Columbia.

Pierre Bilodeau

- **Pierre Bilodeau** has joined NSERC as the Director of Scholarships and Fellowships. After completing his doctorate and postdoctoral training, Pierre worked as a researcher and administrator at the Alberta Research Council and at Medicago, a biotechnology company in Quebec City.

Mario Lamarca

- **Mario Lamarca**, Director, Life Sciences and Special Research Opportunity Division of the Research Grants and Scholarships Directorate of NSERC, has accepted an assignment as the Director of the eBusiness Division of the Common Administrative Services Directorate.

# NSERC Awards Its Largest Single Grant

NSERC made the largest single grant in its history recently, giving $48.5 million over five years to CMC Microsystems. The funds will support the development of Canadian-made microsystems for key economic sectors including health care, security, environment, aerospace, automotive and natural resources.

CMC is a unique Canadian organization that provides academics with tools that are state of the art in industry to move theory into practical applications. Through its network of more than 40 universities, CMC makes it possible for some 2,400 researchers and graduate students to design, manufacture and test prototype microsystems. As a result of cash and in-kind contributions from industry and other sources, the total program value will be more than $100 million.

Janet Walden, NSERC's Vice-President, Research Partnerships Programs, and David McGuinty, Member of Parliament for Ottawa South, announced the grant at the CMC Microsystems 2005 Annual Symposium in Ottawa on October 13.

affairs ebusiness

## Increase in Electronic Submissions, Decrease in Waiting Time

This fall, NSERC received almost 4,000 Discovery and Research Tools and Instruments grant applications, up 22 per cent from last year. Applicants really took advantage of the new attachment process that linked documents already converted into a PDF format directly to the application, bypassing the conversion process altogether. Even with an increase in the number of electronic submissions, waiting time to submit the application was significantly reduced as was the load on the NSERC system.

## Knowledge and Technology Transfer Receive $17.1 Million Boost

Universities, hospitals and colleges across Canada will share in 22 grants worth $17.1 million under the Intellectual Property Mobilization (IPM) program. The announcement was made in September by Industry Minister David L. Emerson and Health Minister Ujjal Dosanjh. IPM is a cooperative arrangement involving NSERC, the Canadian Institutes of Health Research, and the Social Sciences and Humanities Research Council of Canada.

Sixteen of the awards, called "network awards" and worth $14.26 million, will provide the essential resources for research-intensive institutions to develop the critical mass of expertise, tools and resources to manage and protect intellectual property, to encourage entrepreneurship and to make industry more aware of the knowledge and technology resources at their disposal.

To address the short supply of technology transfer practitioners in Canada, $2.87 million will also be invested in 6 internship programs. These internships will provide trainees with the opportunity to gain the hands-on experience required to effectively manage intellectual property and guide its commercialization.

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Dr. Vassileva is a successful computer scientist who, having balanced career and family responsibilities, has become an international leader in her research field. Her vision for the chair focuses heavily on building communities of practice, mentors, and peers and friends as a means of involving women in science and engineering. She believes that social change can happen only when there is support and action from a wide variety of groups, and she sees her role as a catalyst in the process. Dr. Vassileva sees as a unique challenge connecting with Aboriginal women, informing them and exciting them about the possibilities that a career in science and engineering would open for them.

Alice Wong, Director, Investor and Corporate Relations at Cameco, says "In our business, we see first-hand the increasing demand for engineers and science specialists, and we recognize that there is much work to be done to encourage female and Aboriginal students at elementary and secondary school levels to explore education and careers in science and engineering. The Chair will play an important role in raising the profile of women in science and engineering, which is critical at Cameco and throughout Saskatchewan."

**The five Regional Chairs for Women in Science and Engineering are:**

Cecilia Moloney,
NSERC/Petro-Canada CWSE –
Atlantic Region

Decision Pending,
Quebec Region

Valerie Davidson,
NSERC/Hewlett Packard CWSE –
Ontario Region

Julita Vassileva,
NSERC/Cameco CWSE –
Prairie Region

Anne Condon,
NSERC/General Motors CWSE –
British Columbia Region

## Canadian Women Scientists Influencing Young Minds Through the WISET Program

Providing role models for young people is one of the raisons d'être of the Women in Science, Engineering and Technology (WISET) Exchange Lectureship program, which is administered by the Royal Society of Canada with support from NSERC, the Canadian Institutes of Health Research and other organizations as well as their UK and Japanese counterparts.

The Canada-UK and Canada-Japan WISET program brings women of outstanding accomplishment in research from one country to the other to visit and lecture publicly. The program aims to raise the international profile of women in SET, encourage mentoring and the development of role models, promote SET to young women, and increase awareness of the advances made by women scientists and engineers.

Dr. Elizabeth Cannon, a geomatics engineering professor at the University of Calgary and former NSERC Steacie Fellow, was the first Canada-UK WISET lecturer. While visiting the UK in March 2004, Dr. Cannon lectured on "The Power of Two Passions: Mixing Women in SET and Engineering Research," and spoke to teenage students about "Bringing Space Down to Earth with the Global Positioning System." She also met UK university administrators to discuss best practices in attracting and retaining women in SET careers.

The first Canada-Japan WISET lecturer was Dr. Jillian Buriak, a Canada Research Chairholder in Inorganic and Nanoscale Materials. Dr. Buriak visited Japan in March 2005 where she lectured at Japanese universities about her research in semiconductor surface chemistry and spoke to high school students about nanotechnology. At the Canadian Embassy in Tokyo, Dr. Buriak shared her thoughts on Canada's strengths in nanotechnology, on the National Institute for Nanotechnology, where she has a cross-appointment, and on current controversies about nanotechnology.

Drs. Cannon and Buriak enthused about the international opportunities the WISET program provided. "I met with top people in my area, visited their labs and met their students," said Dr. Buriak. "There's a personal connection now… some interesting collaborations may eventually come from this."

Dr. Molly Shoichet, a dynamic professor of chemical engineering and applied chemistry at the University of Toronto, has already been chosen as one of Canada's WISET lecturers to visit the UK in 2006. She is an NSERC Steacie Fellow and holds a Canada Research Chair in Tissue Engineering.

The Royal Society of Canada is seeking nominations for the next round of exchange lecturers. The ideal candidates must have a strong research record, excellent public speaking skills and be keen to inspire young women in SET.

For more information, contact Josée Lalande at (613) 991-9005 or jlalande@rsc.ca.

## *Research Means Business:* 2005 edition released

NSERC recently released the 2005 edition of *Research Means Business*, a directory of Canadian companies built on university research funded by the agency.

The 141 companies featured in the directory have headquarters across Canada in nearly all provinces, employ nearly 13,000 Canadians, and generate more than $3.5 billion in annual sales.

You can view the directory online at www.nserc.gc.ca/research-business. To request a copy of the publication, send an e-mail to z-distribution@nserc.ca or call (613) 996-3078, and provide your name and address.